

**Notes from URGWOM Steering Committee Meeting;  
November 10, 2005; 10:00 AM; Corps of Engineers Conference Room,  
Albuquerque**

*In Attendance:*

Cyndie Abeyta, USFWS

Corina Chavez, Corps

Tim Darden, NMDA

Heather Gordon, SAIC/Corps

William J. Miller, WJM Engineering,  
Inc./Corps

Conrad Keyes, Jr., Consultant to Corps

Rong Kuo, USIBWC

Dagmar Llewellyn, SSPA (for NMISC)

Leslie McWhirter, Corps

Michael Roark, USGS

April Sanders, Corps

Sue Tillery, NMSU

Tim J. Ward, UNM

Dave Wilkins, Consultant to Corps

- ❖ Latest update of MRG Bosque Plan available, with some hardcopies at the meeting. This is the major planning document for the Middle Rio Grande.
- ❖ April Sanders mentioned the CADSWES December 13-14 workshop in Boulder for Corps personnel involved in Riverware development. Also, USACE Fort Worth has offered Albuquerque the opportunity to take over their scope of work for the contract to go out in January.
- ❖ Mike Roark introduced Tech Team Activities on two handouts.
- ❖ Cyndie Abeyta is in charge of MRG Bosque Initiative (of Senator Domenici).
  - The guidance for this initiative is the Biological Management Plan (1993), which includes 21 recommendations on how to enhance biological conditions in the MRG.
    - The document needs to be updated every five years.
    - The most recent version was written by a farmer/historian from Tome, and documents the history of the MRG from 1993-2004. The hardcopy contains a disk with the 1993 and current documents, as well as the URGWOM/MRGCD schema.
- ❖ April Sanders mentioned several budgeting issues. The Corps will soon have a budget.
  - Anticipating approximately \$2 million for URGWOM
  - If data gaps are identified during Phase 2, let the Corps know soon so money can be allocated.
  - Corps had expressed additional capabilities for GW/SW models in the southern part of the watershed.
    - Requests for funding these capabilities came through
    - Corps must provide capability statements by FY 07
- ❖ Cyndie Abeyta and Mark Horner have been working on creating a water quality collection infrastructure through the MRG.
  - Please express any interest in a water quality collection system for the southern area to the Corps.
- ❖ URGWOM EIS will be soon be released to the public.
  - Before general public release, there will be a three-week pre-release to the tribes.
  - The public release is slated to last 90 days.

- Scheduling for public meetings throughout the basin will soon begin.
  - The Corps committed to two tribes to do northern and southern workshops, in which a specialist works with tribal members to demonstrate and explain the model. These meetings are intended to show the tribes how the model will affect them, and also gain face to face time with tribal environmental staff.
  - Tribal liaisons will coordinate workshops during 90 public comment period.
- A website is being developed that has data and the ability to allow the public to provide online comments.
  - Leslie discussed an in-house meeting that was held to enable the delivery of these capabilities. The website will be based on a similar BLM site, and is intended to provide a user-friendly comment form. This form will be an improvement over the DEIS comment form.
- There have been some delays in getting the public draft.
- The Corps will review editorial comments by Wednesday, November 16, 2005.
- SAIC will be preparing the camera-ready document, and the Corps will be in charge of the distribution.
- The NOA is anticipated to be published by the end of December.
- Ellen Dietrich will provide the revised schedule to the group.
- ❖ Rong Kuo gave the following information regarding the USIBWC
  - A report is being prepared for the reach between Fort Quitman and American Dam.
  - Data is being collected for this reach from November through April.
  - Individual surveyors have been issued IDs, to circumvent issues that could arise along the international boundary.
  - The surveyors will begin the cross-sections on the American side, and continue on the Mexican side after notification of the appropriate authorities for both countries. The Juarez Police, IMS, and Border Patrol all had to be notified to do field work on the Mexican side.
  - The study will culminate on the Mexican side.
  - 100 cross-sections will be surveyed along the 80-mile reach.
  - Doug will establish monuments on the American side. Mexico did agree to allow for the establishment of monuments.
- ❖ Cyndie Abeyta mentioned that the topic of the next Bosque Hydrology Group is GW/SW interactions.
  - An invitation was issued to present at this meeting.
  - Cyndie Abeyta will send out a notice to this group regarding this meeting in the next two weeks.
- ❖ The next URGWOM Steering Committee meeting will be held December 8.

## **Technical Team Activities**

November 10, 2005

### **MODEL TESTING**

#### **Past activities**

- Working with the testers to help them complete their testing.

#### **Future activities**

- Results should be sent from testers by November 15.
- Help analyze the results of the testing

### **SW/GW INTERACTION**

#### **Past activities**

- SW/GW interaction workshop on October 3 & 4
- Started proof of concept test for new SW/GW interaction methods in RiverWare

#### **Future activities**

- Existing model will have error loops taken out and existing RiverWare head dependent flux methods will be tested.
- Work with CADSWES in developing a design document for required changes to or development of RiverWare methods
- Work with CADSWES in developing a design document for a dynamic link between RiverWare and MODFLOW

### **TARGET FLOW CALCULATIONS**

- When Brad was here found some problems that were affecting target flows
- Mark prepared a technical memorandum on fixing problems with target flows.

### **UPDATE OF DATA IN HEC-DSS DATABASE**

- Technical team updating the model database with 2000 through 2004 data.

### **FEDERAL INTERAGENCY HYDROLOGIC MODELING CONFERENCE**

- Several members finished preparing and submitted papers for the conference
- Technical Team members will give presentations at the conference in April.

### **RULES DEVELOPMENT AND DOCUMENTATION**

- Nabil and Garret will complete review of the rules documentation.

### **WATERSHED MODELING**

- Work on MMS by the technical team is halted for the present.
- Corps of Engineers developing snow-melt runoff model using their CWMS software.

## **Technical Team Tasks - CY2006 and beyond**

### **TESTING OF MODEL**

Priority: 1 (ongoing)

The Technical Team will accomplish the check of the Phase 2 tester's models and results.

Approximate Technical Team time required: All 0.25 month

### **DOCUMENTATION OF RULES**

Priority: 1 (ongoing)

This task is 90 percent completed. The rules have been documented inside of RiverWare. All that is left for this task is review of the rules documentation by Nabil Shafik and Garret Ross.

Approximate Technical Team time required: Garret and Nabil 1 month

#### **REFINE MIDDLE VALLEY GW/SW INTERACTION**

Priority: 1 (ongoing)

The technical team has determined that two approaches should be pursued to simulate the surface-water, ground-water and evapotranspiration interaction in the middle valley. The two approaches are (1) a dynamic link between RiverWare and MODFLOW and (2) development of RiverWare methods to simulate the interaction.

Approximate Technical Team time required: M. Roark undetermined  
N. Shafike undetermined

#### **COORDINATE WITH DEVELOPERS OF MODEL BELOW ELEPHANT BUTTE**

Priority: 1 (ongoing)

The Water-ops Model will need to be developed beyond just flood control capabilities. The Technical Team will coordinate with the Paso del Norte Watershed Counsel with their development of the RiverWare Model below Elephant Butte.

Approximate Technical Team time required: All undetermined

#### **TRACKING TYPES OF RIO GRANDE WATER THROUGH THE MODEL**

Priority: 2 (not started)

There is a need to be able to track the different types of Rio Grande water through the model, especially during drought conditions. The different types of water that need to be tracked are: Prior and Paramount water, ESA supplemental water, MRGCD drought water, and Rio Grande Conservation water. This change to the Water-Operations Model would require that new methods be written by CADSWES for routing and tracking the water. Some existing rules will need to be changes and new rules written by the Technical Team.

Approximate Technical Team time required: Garrett Ross undetermined  
Ed Kandel undetermined  
Mark Sidlow undetermined

#### **MODIFY RULES FOR HYDROLOGICALLY BASED TARGETS AND OTHER RELEASE SCHEDULES, E.G., BO TARGETS**

Priority: 2 (not started)

Currently the Water-ops and Planning models are set up to accept only targets and other release factors based on one annual target schedule (that would repeat every year in the Planning model). To model targets such as those in the BO, requires being able to change the targets year to year based on hydrologic conditions, such changing the location and amount of the target whether in dry, average or wet hydrologic conditions each year. Requires some modifications to the rules and setting slots to allow changing targets and other operation scenarios (e.g., movement and amount of San Juan-Chama water).

Approximate Technical Team time required: M. Sidlow 3 weeks  
Brad Vickers 3 weeks

#### **SNOWMELT MODELING FOR STREAMFLOW FORECAST**

Priority: 3 (ongoing)

Work is on hold with MMS due to problems with model. The Corps is pursuing developing its own rainfall/snowmelt runoff modeling for the Rio Grande using HEC-HMS and CWMS.

Approximate Technical Team time required: Mark Sidlow      undetermined

### **Develop formal procedure for model and rules enhancements and bug fixes**

Priority: 2 (new task)

Need to scope out if any software available to make process of updating rules and models more formal

Approximate Technical Team time required: Mark Sidlow      undetermined  
Mike Roark      undetermined

### **Development of Short-Period Forecast Water Operations Model**

Priority: 2 (new task)

Develop the infrastructure to use URGWOM for weekly to daily model runs for real time water operations. The infrastructure will include:

1. A means to handle and format real-time data
2. Running of models to supply input forecasts of weather, ET, etc. data
3. Automated way to gather resources and run URGWOM

Approximate Technical Team time required: All      undetermined